To: Montgomery, Michael[Montgomery.Michael@epa.gov]; Keener, Bill[Keener.Bill@epa.gov]; Mogharabi, Nahal[MOGHARABI.NAHAL@EPA.GOV]  From: Zito, Kelly  Sent: Fri 11/21/2014 11:26:44 PM  Subject: Fwd: Monday call - US EPA
Another story on UIC. Note many questions raised about fracking
Kelly
Begin forwarded message:
From: "Wilson, Ed@DOC" < Ed.Wilson@conservation.ca.gov > Date: November 21, 2014 at 3:16:26 PM PST  To: "Zito, Kelly" < ZITO.KELLY@EPA.GOV > Cc: "Stapler, Richard@CNRA" < richard.stapler@resources.ca.gov > Subject: Monday call - US EPA
Kelly,
Nice talking with you this afternoon. Per our conversation, the agenda for the Monday meeting is being finalized. Richard and I are available to be on the call.
Also, here is the Al Jazeera story.
Have a great weekend.
Regards,
Ed
Ed Wilson

California Department of Conservation

## California environmental groups call for tighter fracking controls

They claim billions of gallons of fracking wastewater may have illegally ended up in aquifers as state testing continues

## Haya El Nasser, Al Jazeera, 11-20-14

Environmental groups are renewing calls for stricter regulations on fracking now that they claim to have new evidence that almost 3 billion gallons of wastewater might have ended up in Central California aquifers that supply water for drinking and irrigation.

The State Water Resources Control Board issued orders to seven oil production companies last July to immediately shut down 11 waste water disposal wells "to avoid potential harm to a limited number of groundwater aquifers in Kern County." Two of the wells have since been reinstated.

But the Center for Biological Diversity <a href="www.biologicaldiversity.org">www.biologicaldiversity.org</a> said that its own analysis of records from California's Division of Oil, Gas and Geothermal Resources shows that the nine injection wells that remain closed have been illegally dumping oil industry wastewater into clean-water aquifers in Kern County. The group added up all the wastewater injected into these wells.

"So far, testing conducted by the State Water Board has not indicated that injection has harmed any aquifers," said Donald Drysdale, spokesman with the state Department of Conservation.

But the state did find that the wells appeared to be injecting into protected sources of groundwater. That's why testing will continue.

"To be clear, these wells were injecting fluid associated with oil and gas production, but not necessarily related to hydraulic fracturing operations," Drysdale said.

Fracking, or hydraulic fracturing, is the process of drilling and injecting fluid into the

ground at high pressure to fracture shale rocks and extract underground fossil fuels. The process produces large amounts of wastewater that oil and gas companies have to dispose of. The waste is supposed to be re-injected into "exempt" aquifers, or ones that are not clean enough to supply drinking water

California oil companies produce and re-inject billions of gallons of briny water each year. Some is permanently stored in wastewater wells, such as the ones the state shut down.

Operators were not required to report the use of hydraulic fracturing until the start of 2014, "and it is unknown whether any of the shut-in wells were fractured," Drysdale said, adding the likelihood of fractured wells is low.

Tupper Hull, vice president of strategic communications for the Western States Petroleum Association, disputed the environmental group's interpretation of the state action.

"No aquifers were contaminated by wastewater," Hull said. "I can tell you that categorically."

The problem has more to do with whether old wells that have been functioning for decades had received the proper permits that now regulate injection of wastewater, Hull said.

"After looking over hundreds of wells, there were nine wells where there was a question," he said.

However, state officials also tested eight water supply wells within a one-mile radius of those wells, and samples from four wells showed higher-than-allowed levels of nitrate, arsenic and thallium — chemicals that could have come from the fracking process itself, from the disposal of waste caused by fracking — or from farming practices.

Jason Marshall, Chief Deputy Director at California's Department of Conservation, told NBC Bay Area this month: "In multiple different places of the permitting process, an error could have been made."

"We had a suspicion that contamination was going to occur because we had seen open and unlined pits that we believe were containing waste from fracking," said Madeline Stano, staff attorney with The Center on Race, Poverty & The Environment in the Kern County city of Delano. "Sadly, we weren't surprised."

Area residents have complained of headaches and nausea, she said.

"They're drilling first and asking questions later," Stano said. "They don't have a strategy on what to do with this waste. It's kind of a wild, wild west scenario in Kern County."

The state recently passed legislation that requires new fracking regulations to go into effect next summer.

But the new law will not prevent problems, said Hollin Kretzman, staff attorney at the Center for Biological Diversity, the group that publicized the Kern County case.

"Well operators who have fracked most likely will have to disclose what's being disposed and where it's disposed," he said. "What (the new law) doesn't do is address the fundamental problem that this is billions of gallons that's being injected into aquifers ... Even with strong regulations, there's still a real danger from toxic wastewater."

Contamination of valuable groundwater resources is especially disturbing at a time when California is suffering an epic drought, Kretzman said.

There are hundreds of fracking wells online in California that are completely unregulated, Stano said. Some wells were permitted more than 30 years ago and the state is now playing catch-up to ensure they are all up to stricter standards.

But the new law "doesn't go far enough at all," Stano said.

In its letter to the EPA, the state water board said it will "continue to collect and assess the information that is required to be submitted by injection well operators" and will "issue orders ... to cease injections, where warranted."